



PATENT
Docket No. SPLX.P0126

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Mani Adeli

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of:

Steven Teig

Serial No.: 10/079,061

Filing Date: 2/20/02

For: **METHOD AND APPARATUS FOR
PRE-COMPUTING PLACEMENT
COSTS**

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**INFORMATION DISCLOSURE
STATEMENT UNDER 37 C.F.R. § 1.97**

Commissioner for Patents
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Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 C.F.R. § 1.97 and § 1.98, applicants submit with this Information Disclosure Statement the attached Form PTO-1449, and copies of the documents listed in the 1449 form for consideration by the Examiner. The Examiner is requested to make these documents of record. Applicants would appreciate the Examiner initialing and returning the Form PTO-1449, indicating that the information has been considered and made of record herein.

TRANSMITTAL
FORM

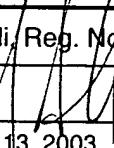
(to be used for all correspondence after initial filing)

TRANSMITTAL FORM <i>(to be used for all correspondence after initial filing)</i>		Application Number	10/079,061
		Filing Date	2/20/02
		First Named Inventor	Steven Teig
		Group Art Unit	2825
		Examiner Name	
Total Number of Pages in This Submission		Attorney Docket Number	SPLX.P0126

Enclosures (Check all that apply)

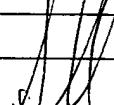
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declarations(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Documents <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an application) <input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosures (Listed below): Postcard Form 1449 88 cited references	
			<input type="checkbox"/> Assignment Papers (for an application)
			<input type="checkbox"/> Drawing(s)
			<input type="checkbox"/> Licensing-related Papers
			<input type="checkbox"/> Petition
			<input type="checkbox"/> Petition to Convert to a Provisional Application
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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Or Individual name	Mani Adeli, Reg. No. 39,585 of Stattler Johansen & Adeli LLP
Signature	
Date	November 13, 2003

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This Information Disclosure Statement under 37 C.F.R. § 1.97 is not to be construed as a representation that: (i) a complete search has been made; (ii) additional information material to the examination of this application does not exist; (iii) the information, protocols, results and the like reported by third parties are accurate or enabling; or (iv) the above information constitutes prior art to the subject invention.

This Information Disclosure Statement is submitted within three months of the application filing date or before the mailing date of a first Office Action on the merits; accordingly, no fee or separate requirements are required.

However, in the unlikely event that the Patent Office determines that additional fees, extension and/or other relief is required, applicant petitions for any required relief including extensions of time and authorizes the Assistant Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 50-1128** referencing SPLX.P0126. However, the Assistant Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: November 13, 2003

Respectfully submitted,

By: _____

Mani Adeli
Registration No. 39,585

Stattler, Johansen & Adeli LLP
P.O. Box 51860
Palo Alto, CA 94303-0728

Phone No. (650) 752-0990 x102
Fax No. (650) 752-0995



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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Application Number	10/079,061
				Filing Date	2/20/02
				First Named Inventor	Steven Teig
				Group Art Unit	2825
				Examiner Name	
Sheet	1	of	7	Attorney Docket Number	SPLX.P0126

U.S. PATENT DOCUMENTS						
Examiner* Initials	Cite No. ¹	U.S. Patent Document Number	Kind Code ² (if known)	Date of Publication MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	1.	2001/0009 031	A1	07-19-2001	Nitta et al.	
	2.	2002/0182 844	A1	12-05-2002	Igarashi et al.	
	3.	2003/0025 205	A1	02-06-2003	Shively	
	4.	2003/0005 399	A1	01-02-2003	Igarashi et al.	
	5.	4,593,363		06-03-1986	Burstein et al.	
	6.	4,855,929		08-08-1989	Nakajima	
	7.	5,267,176		11-30-1993	Antreich et al.	
	8.	5,375,069		12-20-1994	Satoh et al.	
	9.	5,587,923		12-24-1996	Wang	
	10.	5,618,744		04-08-1997	Suzuki et al.	
	11.	5,633,479		05-27-1997	Hirano	
	12.	5,637,920		06-10-1997	Loo	
	13.	5,640,327		06-17-1997	Ting	
	14.	5,663,891		09-02-1997	Bamji et al.	
	15.	5,757,089		05-26-1998	Ishizuka	
	16.	5,784,289		07-28-1998	Wang	
	17.	5,798,936		08-25-1998	Cheng	
	18.	5,838,583		11-1998	Varadarajan et al.	
	19.	5,889,677		03-30-1999	Yasuda et al.	
	20.	5,980,093		11-09-1999	Jones et al.	

Examiner Signature	Date Considered
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Filing Date	2/20/02
				First Named Inventor	Steven Teig
				Group Art Unit	2825
				Examiner Name	
				Sheet	2

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21.	6,070,108		05-30-2000	Andreev et al.
22.	6,128,767		10-03-200	Chapman
23.	6,209,123	B1	03-27-2001	Maziasz et al.
24.	6,253,363	B1	06-26-2001	Gasanov et al.
25.	6,295,634	B1	09-25-2001	Matsumoto
26.	6,324,674	B2	11-27-2001	Andreev et al.
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31.	6,378,121	B1	04-23-2002	Hiraga
32.	6,407,434	B1	06-18-2002	Rostoker et al.
33.	6,412,102	B1	06-25-2002	Andreev et al.
34.	6,415,422	B1	07-02-2002	Mehrotra et al.
35.	6,442,743	B1	08-27-2002	Sarrafzadeh et al.
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37.	6,473,891	B1	10-29-2002	Shively
38.	6,480,991	B1	11-12-2002	Cho et al.
39.	6,490,713	B2	12-03-2002	Matsumoto
40.	6,519,751	B2	02-11-2003	Sriram et al.
41.	6,543,043	B1	04-01-2003	Wang et al.
42.	6,546,540	B1	04-08-2003	Igarashi et al.
43.	6,557,145	B2	04-29-2003	Boyle et al.

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Sheet	3	of	7	Attorney Docket Number	SPLX.P0126

U.S. PATENT DOCUMENTS					
44.	6,567,967	B2	05-20-2003	Greidinger et al.	

FOREIGN PATENT DOCUMENTS							
Examiner* Initials	Cite No. ¹	Foreign Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T 6
		Office ³	Number ⁴				
	45.	JP	411296560	A Matsumoto et al.	10-29-1999	with English translation of Abstract;	
	46.	JP	2000-82743	A Igarashi et al.	03-21-2000	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	✓
	47.	JP	H03-173471	A Tawada et al.	07-26-1991	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	✓
	48.	JP	H05-243379	A Masako Kubota	09-21-1993	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	✓
	49.	JP	H05-102305	A Akihiro Sato	04-23-1993	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	✓

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					Group Art Unit	2825
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Sheet	4	of	7		Attorney Docket Number	SPLX.P0126

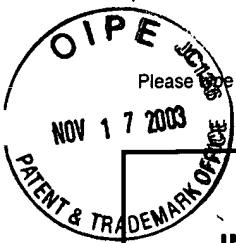
FOREIGN PATENT DOCUMENTS							
50.	JP	H07-86407	A	Shinpei Miura	03-31-1995	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	✓
51.	JP	H09-162279	A	Masaaki Yoshida	06-20-1997	with Japanese Patent Office's English translation of Abstract; and with English translation of the application.	✓

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				Examiner Name	
Sheet	5	of	7	Attorney Docket Number	SPLX.P0126

FOREIGN PATENT DOCUMENTS

NON PATENT LITERATURE DOCUMENTS

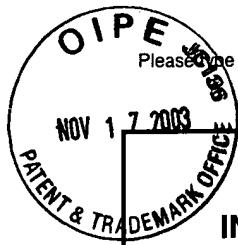
Examiner* Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.	T ⁶
✓	52.	Ahuja, R. et al., Faster Algorithms for the Shortest Path Problem, Journal of the Association for Computing Machinery, vol. 37, No. 2, April 1990, pp. 213-223.	
✓	53.	Brady, L. et al., Channel Routing on a 60° Grid, extended abstract, pp. 956-931.	
✓	54.	Brambilla, A. et al., Statistical Method for the Analysis of Interconnects Delay in Submicrometer Layouts, IEEE, 8/2001, pp. 957-966.	
✓	55.	Carothers, K., A Method of Measuring Nets Routability for MCM's General Area Routing Problems, 1999, pp. 186-192.	
✓	56.	Chen, H. et al., Physical Planning of On-Chip Interconnect Architectures, 2002, IEEE, International Conference, pp. 30-35.	
✓	57.	Cheng, K. et al., Manhattan or Non Manhattan? A Study of Alternative VLSI Routing Architectures, pp. 47-52, 2000.	
✓	58.	Cheng, K., Steiner Problem in Octilinear Routing Model, a Thesis Submitted for the Degree of Master of Science, National University Singapore, 1995, pp. 1-122.	
✓	59.	Chip Model with Wiring Cost Map, August 1983, IBM Technical Disclosure Bulletin, vol. 26, iss. 3A, pp. 929-933.	
✓	60.	Cong, J. et al., Efficient Heuristics for the Minimum Shortest Path Steiner Arborescence Problem with Applications to VLSI Physical Design, Cadence Design Systems and UCLA Computer Science Department, pp.88-95.	
✓	61.	Cong, J. et al., Performance-Driven Multi-Layer General Routing for PCB/MCM Designs, UCLA Computer Science Department, 1998, pp. 356-361.	
✓	62.	Enbody, R. et al., Near-Optimal <i>n</i> -Layer Channel Routing, 23 rd Design Automation Conference, 1986, pp. 708-714.	
✓	63.	Fang, S. et al., Constrained Via Minimization with Practical Considerations for Multi-Layer VLSI/PCB Routing Problems, 28 th ACM/IEEE Design Automation Conference, 1991, pp. 60-65.	
✓	64.	Horn, I. et al., Estimation of the Number of Routing Layers and Total Wirelength in a PCB Through Wiring Distribution Analysis, 1996, pp. 1-6.	

Examiner Signature	Date Considered
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Sheet	6	of	7	Attorney Docket Number	SPLX.P0126

FOREIGN PATENT DOCUMENTS					
✓	65.	Hong, X. et al., Performance-Driven Steiner Tree Algorithms for Global Routing, 30 th ACM/IEEE Design Automation Conference, 1993, pp. 177-181.			
✓	66.	Hu, J et al.: "A Timing-Constrained algorithm for Simultaneous Global Routing of Multiple Nets" IEEE/ACM International Conference on Computer Aided Design. ICCAD – 2000. IEEE/ACM Digest of Technical Papers (CAT. NO.00CH37140), Proceedings of International Conference on Computer Aided Design (ICCAD), San Jose, CA USA, 5-9 Nov. 2000. Pages 99-103.			
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				Group Art Unit	2825
				Examiner Name	
Sheet	7	of	7	Attorney Docket Number	SPLX.P0126

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